HIGH-STRENGTH BOLTED CONNECTION STRUCTURE WITH NO FIRE PROTECTION

ABSTRACT OF THE DISCLOSURE

The present invention provides a high-strength bolted connection structure for realizing a steel structure with no fire protection, which is capable of adequately assuring high-temperature strength of the connection in a high temperature region of 650°C, and which does not depend on a fire protection or protective structure using fire resistant material, wherein ultra-high-strength bolts having excellent fire resistance and excellent resistance to delayed fracture are used, which bolt have a tensile strength at room temperature (TS) of 1200 N/mm^2 or higher, and satisfies the relation that the shear proof stress at high temperature of 650°C (bτt) is not less than (coefficient of slip at room temperature (μ) × design bolt tension (N_0))/ (safety factor for long term load (ν) × cross-sectional area of bolt shank (bAs)).